

DEPARTMENT of ENVIRONMENTAL SERVICES  
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: HALFMOON POND	Lake Area (ha):	6.27
Town: KINGSTON	Maximum depth (m):	3.7
County: Rockingham	Mean depth (m):	2.3
River Basin: Merrimack	Volume (m <sup>3</sup> ):	142000
Latitude: 42°55'13" N	Relative depth:	1.3
Longitude: 71°04'33" W	Shore configuration:	1.63
Elevation (ft): 118	Areal water load (m/yr):	5.32
Shore length (m): 1450	Flushing rate (yr <sup>-1</sup> ):	2.30
Watershed area (ha): 73.7	P retention coeff.:	0.65
% watershed ponded: 0.0	Lake type:	natural

BIOLOGICAL:

24 January 1996

8 August 1995

DOM. PHYTOPLANKTON (% TOTAL)	#1	MELOSIRA 80%	ANKISTRODESMUS 65%
	#2	ASTERIONELLA 15%	MELOSIRA 10%
	#3		TINY PENNATE DIATOM 10%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			19.78
DOM. ZOOPLANKTON (% TOTAL)	#1	NAUPLIUS LARVA 52%	KERATELLA 51%
	#2	KERATELLA 22%	NAUPLIUS LARVA 26%
	#3	CALANOID COPEPOD 17%	
ROTIFERS/LITER		23	319
MICROCRUSTACEA/LITER		78	154
ZOOPLANKTON ABUNDANCE (#/L)		105	473
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			1.3
BOTTOM DISSOLVED OXYGEN (mg/L)		5.0	0.1
BACTERIA (E. coli, #/100 ml)	#1		31
	#2		15
	#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 2.6  
Hypolimnion volume (m<sup>3</sup>) : None  
Anoxic volume (m<sup>3</sup>) : 21000

**CHEMICAL:**

Lake: HALFMOON POND

Town: KINGSTON

	24 January 1996		8 August 1995		
DEPTH (m)	1.0	2.5	1.0		3.0
pH (units)	5.0	5.8	6.7		6.3
A.N.C. (Alkalinity)	1.2	4.7	7.1		12.3
NITRATE NITROGEN	0.08	0.06	< 0.10		< 0.10
TOTAL KJELDAHL NITROGEN	0.68	0.73	0.48		0.81
TOTAL PHOSPHORUS	0.010	0.014	0.019		0.037
CONDUCTIVITY ( $\mu$ mhos/cm)	99.5	108.9	103.3		107.8
APPARENT COLOR (cpu)	110	100	110		140
MAGNESIUM			0.89		
CALCIUM			3.4		
SODIUM			12.9		
POTASSIUM			0.94		
CHLORIDE	20	24	24		23
SULFATE			4		4
TN : TP	76	56	25		22
CALCITE SATURATION INDEX			3.2		

All results in mg/L unless indicated otherwise

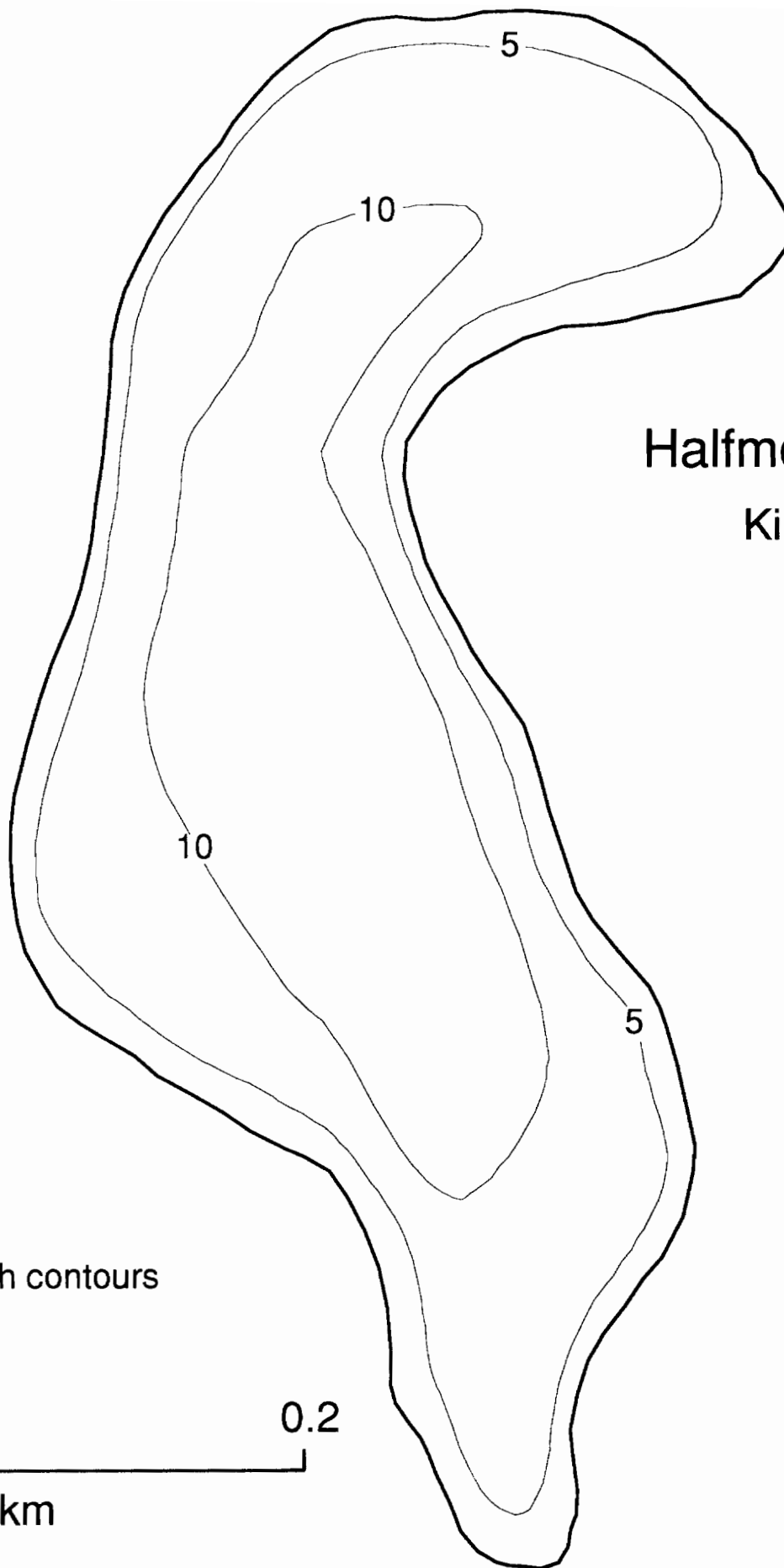
**TROPHIC CLASSIFICATION: 1995**

D.O. S.D. PLANT CHL TOTAL CLASS

**	4	3	4	11	Eutro.
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**COMMENTS:**

1. This pond was previously surveyed and classified in 1989. The pond lies in the watershed of Great (Kingston) Pond and was re-surveyed as part of the Great Pond diagnostic study. There was no change in the assigned trophic class between the two survey years.
2. This is a shallow, darkly tea-colored eutrophic pond. It has elevated algae growth, poor water clarity and no dissolved oxygen below 2.5 meters. Sodium and chloride levels suggest salt runoff from roads.
3. No public access; need permission from land-owners to launch a boat.

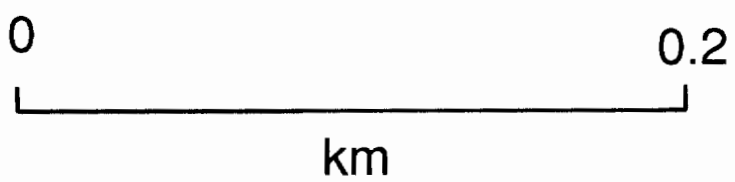


Halfmoon Pond  
Kingston



N

5 foot depth contours



[illegible]

COMMENTS :

111 - 95



[illegible]